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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/053,582	01/24/2002	Kazuki Hosoya	018842.1195	3494

24735 7590 09/25/2003

BAKER BOTTS LLP
C/O INTELLECTUAL PROPERTY DEPARTMENT
THE WARNER, SUITE 1300
1299 PENNSYLVANIA AVE, NW
WASHINGTON, DC 20004-2400

EXAMINER

DUONG, THO V

ART UNIT	PAPER NUMBER
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3743

DATE MAILED: 09/25/2003

9

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/053,582

Applicant(s)

HOSOYA ET AL.

Examiner

Tho v Duong

Art Unit

3743

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 July 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 and 13-36 is/are pending in the application.
- 4a) Of the above claim(s) 13-36 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 7.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION***Response to Arguments***

Applicant's arguments filed 7/10/2003 have been fully considered but they are not persuasive. Applicant's argument that Okuda discloses that the first and second aluminum members are fixed by brazing so that Okuda fails to disclose that the first element is fixed to the second aluminum member via the first portion and second portion of the resin, has been very carefully considered but is not deemed to be persuasive. Applicant is respectfully reminded that claims in a pending application should be given their broadest reasonable interpretation. In re Pearson, 181 USPQ 641 (CCPA 1974). In this case, applicant's arguments rely on an overly narrow interpretation of the claims such that the first and second aluminum members are not fixed by brazing but by only means of resin. Okuda discloses (figure 5) that the first aluminum members and the second aluminum members (1) are mainly fixed together by brazing. However, the first and the second aluminum members (1) are also fixed together by means of a first portion and a second portion of the resin (S) in some degrees since the resin overcoats between the two members. Therefore, in case the brazing connection was failed, the two aluminum members still hang on to each other through the connecting portion of the resin (S). See Figure A below.

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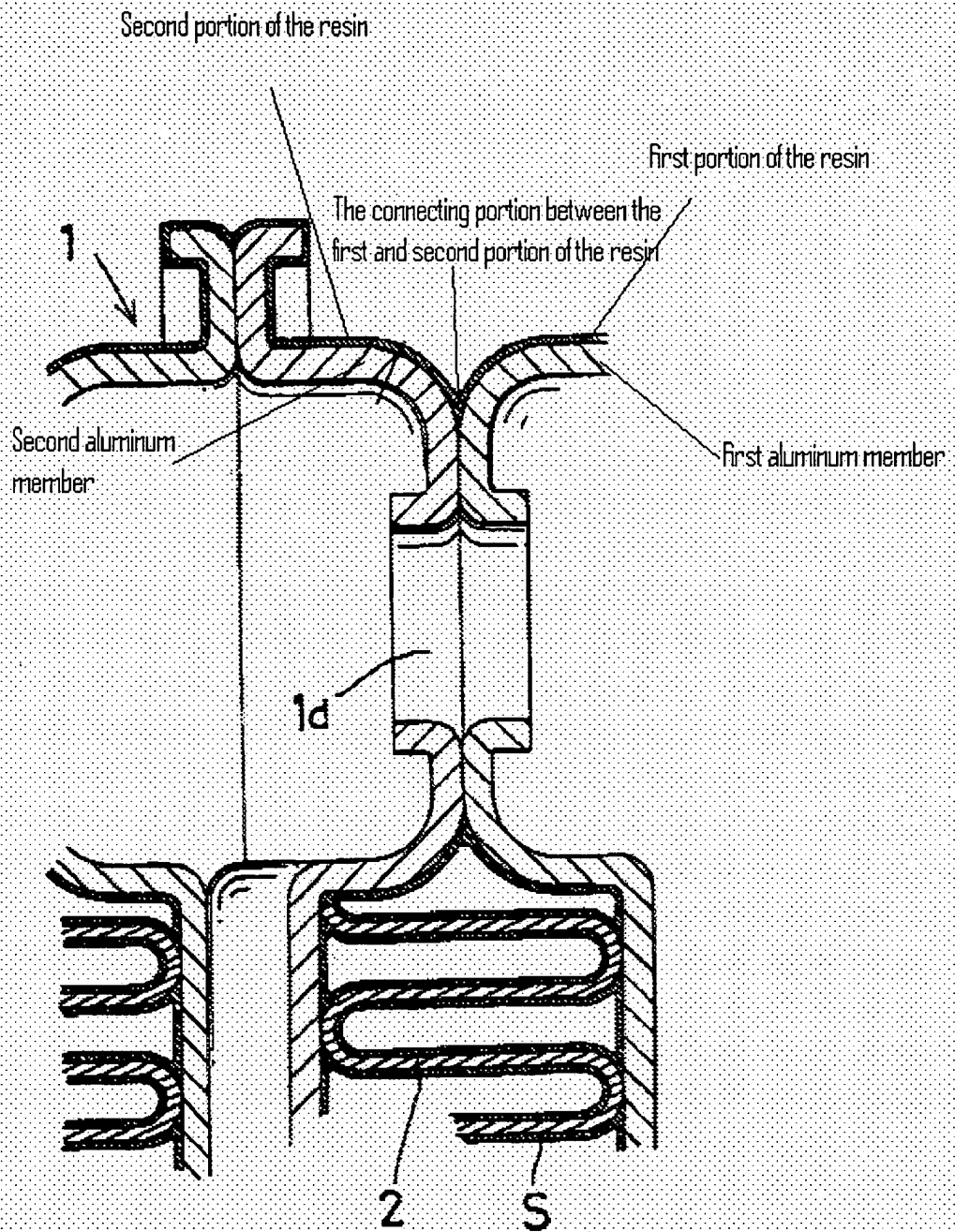


Figure A: the corresponding of figure 5 which shows the fixing means

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Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-4 are rejected under 35 U.S.C. 102(b) as being anticipated by Okuda et al. (US 5,800,673). Okuda discloses (figures 5-7 and figure A) a stacked –type heat exchanger comprising a plurality of aluminum heat transfer tubes (1) formed by pairs of tube plates (6) and fins (2) being stacked alternatively with the tubes; each pair of tube plates (6) having flange portions (6a) connected together; a first tube plate of the pair is coated with a first portion of a resin (S); and a second tube plate of the pair is coated with a second portion of the resin (S) wherein the first tube plate and the second tube plate (6) are fixed together via a connecting portion of the resin (S) as shown in figure A.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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Claims 5-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Okuda in view of Yamasoe (US 5,478,872). Okuda substantially discloses all of applicant's claimed invention except for the limitations of the resin material. Yamasoe discloses (column 1, lines 60-67) that the resin material of thermoplastic and thermosetting resin such as alkyd resin and polyester resin respectively are coated on an aluminum surface to provide an anticorrosion and hydrophilic film for the aluminum material. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use Yamasoe's teaching in Okuda's heat exchanger to provide an anticorrosion and hydrophilic film on aluminum material. Regarding claim 7, the resin material of Yamasoe is similar to the claimed resin. Therefore, it inherently provides lubricity as claimed. Regarding claims 9 and 10, it would have been obvious to one having ordinary skill in the art at the time the invention was made to select nylon resin or Vinylidene fluoride resin as a thermoplastic resin, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use in the application of a particular heat exchanger. In re Leshin, 125 USPQ 416.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

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CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Taiyo Seiko (JP 05212353A) discloses Vinylidene fluoride resin used in a heat exchanger.

A. E. Zygiel (US 3,498,371) discloses a heat transfer device having resin such as nylon.

Any inquiry concerning this communication or earlier communication from the examiner should be directed to Tho Duong whose telephone number is (703) 305-0768. The examiner can normally be reached on from 9:30-6 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Henry Bennet, can be reached on (703) 308-0101. The fax phone number for the organization where this application or proceeding is assigned is (703)308-7764.

Any inquiry of a general nature or relating to status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-0861.

Tho Duong

September 20, 2003

Henry Bennett
Supervisory Patent Examiner
Group 3700